# Permanent Virtual Circuit - Packet (5029,8008)

Permanent virtual circuits are the electronic equivalent of a private line between two points. At the customer's option, a virtual circuit is established between two customer data terminal locations (DTEs) within the network on a dedicated basis. These two locations are electronically connected, operating similar to a private line between the two points. The association between the two DTEs is established via service provisioning.

Generic Name of ONA Service	Product Name	BSE or CNS
Permanent Virtual Circuit - Packet	NX - Permanent Virtual Circuit	BSE or CNS
	USW - Permanent Virtual Circuit (Packet)	BSE

Reference: GR-301 Public Packet Switched Network Generic Requirements (PPSNGR), Issue 2, December 1997 (replaces TR-TSY-301, Issue 2).

This service, if offered as a BSE, is associated with the Packet Switched X.25 and X.75 basic serving arrangements.

# Reverse Charge Request Option (Packet) (5030,8009)

Reverse charging allows the originating user to request that the call be charged to the called party during call setup. The reverse charging call request is delivered to the called party only when their data terminal equipment (DTE) is configured for Reverse Charge Acceptance. If the terminating DTE does not subscribe to Reverse Charge Acceptance, the call will be cleared.

Generic Name of ONA Service	Product Name	BSE or CNS
Reverse Charge Request Option (Packet)	NX - Reverse Charge Request	BSE or CNS
	USW - Reverse Charge Option (Packet)	BSE

Reference: GR-301 Public Packet Switched Network Generic Requirements (PPSNGR), Issue 2, December 1997 (replaces TR-TSY-301, Issue 2).

This service, if offered as a BSE, is associated with the Packet Switched X.25 basic serving arrangement.

# 4. Appendix 1 - Region Specific Services - Technical Descriptions for Dedicated Access Arrangements

#### Access To Customer Premises Announcement (5035)

This feature allows an ESP to furnish customized announcement services to an Automated Call Distribution customer. ACPA connects callers in the ACD queue to customer provided announcements or music. Using this feature the ESP can provide and manage announcements on behalf of the customer. The ESP requires private line access for each ACPA arrangement.

Generic Name of ONA Service	Product Name	BSE or CNS
Access To Customer Premises Announcements	NX - Customized Announcement Service	BSE

#### FEATURE OPERATION:

The ESP furnishes an announcement to the ACPA port over a private line. The ACD will automatically connect a caller in queue to the ACPA port when the feature is present.

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	DMS-100
Earliest Generic Release	BCS36

2. This is a feature of Automatic Call Distribution.

# Access To Order Entry System (4004)

This capability will allow ESPs to provide basic ordering information to the business office through a mechanized interface.

Generic Name of ONA Service	Product Name	BSE or CNS
Access To Order Entry System	BS - Administrative Management Service (AMS)	BSE or CNS

#### FEATURE OPERATION:

A new offering, currently using the BellSouth project name of Administrative Management Service (AMS), will provide a mechanized interface for customers to provide service ordering information to the appropriate business office.

This service will be offered on a dial-up or dedicated basis. The ESPs will not have direct access to the Order Entry System, but will have access through the AMS front-end processor. The front-end processor will provide the necessary security and information screening.

References: not available.

This service, if offered as a BSE, is associated with the Access To Operations Support Systems Information BSE (which is associated with the Dedicated Digital (< 64 kbps) basic serving arrangement).

#### **DS0-B Subrate Multiplexing Service (4015)**

DS0-B Subrate Multiplexer (SRM) service provides time division multiplexing of multiple client digital derived data channels into a single standard interface for efficient interconnection to an ESP.

Generic Name of ONA Service	Product Name	BSE or CNS
DS0-B Subrate Multiplexing Service	BS - DS0-B Interface	BSE or CNS

#### FEATURE OPERATION:

Service is established via a service order placed by the ESP with the local operating company. Appropriate dedicated transport facilities (including local channel and applicable interoffice mileage elements) are also ordered for access to the SRM. The ESP negotiates and makes arrangements with its clients to connect their individual derived data channels to the SRM. These orders must be coordinated with the ESP in order to ensure adequate facilities are available and appropriate channel assignments, as specified by the ESP, are made.

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

- 1. This capability is independent of central office switch type.
- 2. The DS0-B SRM is interconnected to the ESP's client via an appropriate derived data channel service in the local serving office.
- 3. The ESP interconnects to the DS0-B SRM via an appropriate four-wire dedicated transport facility.
- 4. The DS0-B signal is a standard DDS signal as specified in Technical Advisory TA-TSY-00280.

#### References:

See BellSouth documents TR73548 "Derived Channel Access Service Digital Data Over Voice Network Interface Specifications", Issue 1 June 1990 and Addendum 1 March 1991.

This service, if offered as a BSE, is associated with the Dedicated Derived Channel BSA.

#### High Capacity Digital Hand-Off Service (3026)

High Capacity Digital Hand-Off Service carries voice grade local exchange and Channel Services between the customer's serving central office and the customer's compatible premises equipment using a DS1 facility with the D4 format. Up to 24 local exchange voice and Channel Services can be supported on the facility. The facility is handed-off to the customer in the D4 format.

Generic Name of ONA Service	Product Name	BSE or CNS
High Capacity Digital Hand-Off Service	BA - High Capacity Digital Hand-Off Service	BSE

#### FEATURE OPERATION:

At the time the service is ordered the customer must designate which services are to be carried on each of the 24 channels in the DS1 facility. Future additions and changes to channel assignments must be coordinated with the Telephone Company.

Where the serving central office is a digital switch, the facility may run from the customer's high capacity interface directly into the central office switch. Only DID trunks may be carried over this directly connected facility.

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

- 1. The High Capacity Digital Hand-Off facility is a digital channel operating at a transmission speed of 1.544 Mbps. It is a simultaneous two-way transmission media using serial, bipolar, return-to-zero, isochronous, alternating mark inversion format.
- 2. 1000 Channel metallic services and Digital Data Service may not be transported over these facilities.
- 3. Reference: GR-54 DS1 High-Capacity Digital Service End User Metallic Interface Specifications, Issue 1, December 1995 (replaces TR-NPL-000054, Issue 1)

This service is a BSE associated with the Dedicated High Capacity Digital (1.544 Mbps) Basic Serving Arrangement in the local exchange tariff and an alternative of Line Side BSA in the access tariff.

# **Inband Signaling (3018)**

Inband Signaling provides the ability to order analog voice grade Special Access circuits with signaling arrangements as described in TR-NWT-000335.

Generic Name of ONA Service	Product Name	BSE or CNS
Inband Signaling	BA - Inband Signaling	BSE

# Reference:

- TR-NWT-000335 Voice Grade Special Access Service Transmission Parameter Limits and Interface Combinations, Issue 3, May 1993
- MDP-326-584 Table 4 Data Communications Using Voiceband Private Line Channels, Issue 1, October 1973

This service, if offered as a BSE, is associated with the Dedicated Voice Grade basic serving arrangement.

# Line Monitor Service (3027)

Note - this service was removed from the January 1996 issue of the ONA Services User Guide. It is no longer being offered.

# Multiplexing - Digital (2000,2001,2002,2018,3005,4007,5034,7034,8013)

Multiplexing is a technique that uses a single transmission facility to provide several transmission channels, such as by sharing the time slots of the channel (time-division multiplexing) or superimposing many frequencies at the same time (frequency-division multiplexing) in order that many signal sources and links may communicate during a given time period. This capability may include multiplexing such as:

- DS0 To Subrates This capability provides for the time division multiplexing of multiple digital data signals operating at the subrate speeds of 2.4 Kbps, 4.8 Kbps, or 9.6 Kbps with a 64 Kbps DS0 digital signal.
- Multiplexing DS1/Analog or DS0 This capability provides for the pulse code modulation and/or time division multiplexing of multiple analog voice and/or multiple 64 Kbps DS0 digital signals into a 1.544 Mbps data stream for the purposes of reducing the number of transmission links required between two points.
- Multiplexing DS1 To DS0 This capability provides for the time division multiplexing of up to twenty-four 64 Kbps DS0 digital signals into a 1.544 Mbps DS1 digital signal.
- Multiplexing DS1 To Voice Grade This capability provides for the pulse code modulation and time division multiplexing of up to twenty-four 4 kHz voice grade channels into a 1.544 Mbps DS1 digital signal.
- Multiplexing DS3/DS1 This capability provides for the time division multiplexing of up to twentyeight 1.544 Mbps DS1 digital signals into a 44.736 Mbps DS3 digital signal.

Generic Name of ONA Service	Product Name	BSE or CNS
Multiplexing - Digital	AM - Ameritech DS1 to DDS/DS0 Multiplexing	BSE
	AM - Ameritech DS1 to Voice/Ameritech Base Rate Multiplexing	BSE
	AM - Ameritech DS3 to Ameritech DS1 Multiplexing	BSE
	AM - DS0 To Subrate Multiplexing	BSE
	BA - Multiplexing	BSE
	BS - DS1/Analog or DS0 Multiplexer	BSE or CNS
	BS - DS3/DS1 Multiplexer	BSE or CNS
	NX - DS3/DS1 Multiplexer	BSE
	SWB - Multiplexing	BSE
	USW - Multiplexing	BSE

#### References:

- TR-TSY-000009 Asynchronous Digital Multiplexes Requirements and Objectives, Issue 1, May 1986.
- TR-TSY-000010 Synchronous DS3 Add-Drop Multiplex (ADM 3/X) Requirements and Objectives, Issue 1, February 1988.
- Ameritech See GA-342 High Capacity Digital Special Access Service Transmission Parameter Limits and Interface Combinations, Issue 1, December 1995 (replaces TR-INA-000342, Issue 1)

This service, if offered as a BSE, is associated with the Dedicated Voice Grade and the Dedicated High Capacity basic serving arrangements.

For Ameritech, DS1 to DDS/DS0 and DS1 to Voice/Base Rate are associated with Dedicated High Capacity Digital (1.544 Mbps) type BSA; DS3 to DS1 is associated with Dedicated High Capacity Digital (>1.544 Mbps) type BSA.

DS3/DS1 multiplexer is associated with the Dedicated Digital 45 Mbps BSA.

# Route Diversity \*\*

\*\* NOTE - this capability was moved to the main section of the ONA Services User Guide for the July 1993 update.

# **User Initiated Diagnostics (4009)**

This capability will allow ESPs to electronically report and check the status of local and access, circuit and line troubles into support systems. Customers may also receive hard copy printouts.

Generic Name of ONA Service	Product Name	BSE or CNS
User Initiated Diagnostics	BS - Administrative Management Service (AMS)	BSE or CNS

#### FEATURE OPERATION:

A new offering, currently using the BellSouth project name of Administrative Management Service (AMS); will provide a mechanized interface for customers to access this service.

This service will be offered on a dial-up or dedicated basis. The ESPs will not have direct access to the Order Entry System, but will have access through the AMS front-end processor. The front-end processor will provide the necessary security and information screening.

References: not available.

This service, if offered as a BSE, is associated with the Access To Operations Support Systems Information BSE (which is associated with the Dedicated Digital (< 64 kbps) basic serving arrangement).

5. Appendix 1 - Region Specific Services - Technical Descriptions for Dedicated Network Access Link Serving Arrangements

**Expedited Testing Service \*** 

\* Note - this service was deleted due to technical difficulties.

# Message Waiting Indicator Activation (Visual) - Expanded

\*\* NOTE - this service was formerly 2003, but is now service 1101 in the main section of the ONA Services User Guide for the July 1996 update and later.

# Order Entry Service (8011)

This capability delivers to an ESP the ANI of callers to certain telephone numbers along with the called number. The call is not delivered to the ESP. The ANI and called number are forwarded by the telephone company via a private line data link. This capability currently supports cable television pay-per-view applications. The ANI identifies which client ordered the service and the called number indicates which service (television broadcast) was ordered.

Generic Name of ONA Service	Product Name	BSE or CNS
Order Entry Service	USW - ANI Order Entry Service	BSE

References: not available.

This service, if offered as a BSE, is associated with the Dedicated Network Access Link basic serving arrangement.

#### Initial Address Message (2006)

Signaling System Seven (SS7) provides out of band transmission of SS7 protocol signaling information between the end office switching system or the tandem office switching system and the customer's designated premises. The SS7 Signaling option requires the customer to purchase Signal Transfer Point Access and the Basic Initial Address Message Delivery option. This feature is available in SS7 signaling equipped end or tandem offices with Feature Group D and terminating Feature Group B.

The Initial Address Message provides the ESP a common switching optional feature using an SS7 message along with other information relating to the routing and handling of the call to the next switch.

The Initial Address Message Delivery option requires the customer to purchase Signal Point Access and SS7 Signaling option.

Generic Name of ONA Service	Product Name	BSE or CNS
Initial Address Message	AM - Initial Address Message	BSE

#### FEATURE OPERATION:

This Initial Address Message option permits the following optional SS7 signaling call setup parameters: User Service Information, Called Party Number, Calling Party Number, Charge Number, Originating Line Information, Transit Network Selection, Carrier Selection, Service Code and Access Transport.

User Service Information is an SS7 Parameter which may be coded to indicate any one of four circuit mode bearer points for addressing ISDN customer premises equipment.

The Called Party Number parameter is the called directory number delivery.

Calling Party Number is available on a direct SS7 equipped end office connection or a connection to the access tandem when there is not Multifrequency and SS7 signaling interworking.

The Charge Number parameter is the Automatic Number Identification number (ANI). (See Calling Billing Number Delivery - FG D Protocol).

Originating Line Information parameter via SS7 is equivalent to the information digits provided with ANI digits to an interexchange carrier. This data identifies the following items: that (1) the originating telephone number is the station billing number, no special treatment is required, (2) it is a multiparty line - the telephone number is a four/eight-party line and cannot be identified - number must be obtained by operator or some other manner, (3) and ANI failure has occurred, (4) this is a hotel/motel originating call, (5) this is a coinless station, hospital, inmate, etc. call requiring special screening or handling, (6) the call is an Automatic Identified Outward Dialed (AIOD) call from customer premises equipment (CPE).

Transit Network Selection is an SS7 parameter which indicates to an intermediate node or network which carrier and circuit group is to be selected.

Carrier Selection is an SS7 parameter which identifies whether the originating line is presubscribed to an interexchange carrier or not. If the line was presubscribed this parameter will report if the end user dialed 10XXX (and/or 101XXXX), did not dial 10XXX (and/or 101XXXX), or that no indication of dialing is available.

Service Code is an SS7 parameter which allows individual calls to be identified and routed based on specific service characteristics.

Access Transport is an SS7 parameter used to transport ISDN user information across the network. This information is transparent to the local exchange carrier.

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS	5ESS	DMS-100
Earliest Generic Release	1AE11	5E6	BCS30

#### 2. References:

- Ameritech Technical reference AM-TR-OAT-000069, Issue 3, August 1993 Ameritech Supplement Common Channel Signaling (CCS) Network Interface Specification.
- Technical Reference GR-317 Switching System Generic Requirements for Call Control Using the Integrated Services Digital Network User Part (ISDNUP), Issue 2, December 1997, Revision 1 – November 1998, (replaces TR-NWT-000317, Issue 4).
- Technical Reference GR-394 Switching System Generic Requirements for Interexchange Carrier Interconnection Using the Integrated Services Digital Network User Part (ISDNUP), (module of LSSGR, FR-64), Issue 2, December 1997, Revision 1 – November 1998, (replaces TR-NWT-000394, Issue 4).
- Technical Reference GR-905 Common Channel Signaling Network Interface Specification (CCSNIS)
  Supporting Network Interconnection, Message Transfer Part (MTP), and ISDN User Part (ISDNUP),
  Issue 2, December 1996, Revision 1 December 1997, Revision 2 December 1998, (replaces TR-TSV-000905, Issue 2).

#### Coordinated Voice and Data Acceptance (2007)

Coordinated Voice and Data Acceptance allows for the simultaneous delivery of voice and data for incoming calls. Additional caller information may be requested to provide information to the agent line, however, this is determined by the host computer application. If the customer wants the capability of having the host computer send the customer information automatically to the agents' lines, then Caller ID must be ordered on the Automatic Call Distributor Centrex line.

Generic Name of ONA Service	Product Name	BSE or CNS
Coordinated Voice and Data Acceptance	AM - Coordinated Voice and Data Acceptance	BSE

#### FEATURE OPERATION:

The Dedicated Network Access Link (DNAL) BSA allows the coordinated delivery of voice and data information for incoming and outgoing calls between a customer's host computer and the telephone company. The Coordinated Voice and Data Acceptance feature accommodates, via the exchange of data messages on the DNAL, various feature interactions between the ESP's host computer and the telephone company. Features that may interact with a host computer using this feature include Computer Assisted Dialing Acceptance, Call Redirection Acceptance, and Computer Assisted Call Transfer Acceptance.

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	DMS-100
Earliest Generic Release	BCS33

2. Currently, this feature is only available on lines served by an Automatic Call Distributor in the DMS-100 equipped with the Switch Computer Application Interface functionality.

#### 3. References:

• Ameritech Technical reference AM-TR-NIS-000109, Ameritech Switch to Computer Application Interface (ASCAI) Network Interface Specifications, Issue 1, October 1992.

# Computer Assisted Dialing Acceptance (2010)

Computer Assisted Dialing Acceptance allows the customer's host computer to notify the telephone company equipment to place a call to a selected number on behalf of a particular agent. The computer dials the number and when the call is answered then the called party is connected to an agent. Customers using this feature must comply with the provisions of the Telephone Consumer Protection Act of 1991 as set forth in Part 64 and Part 68 of the Federal Communication Commission's Rules.

Generic Name of ONA Service	Product Name	BSE or CNS
Computer Assisted Dialing Acceptance	AM - Computer Assisted Dialing Acceptance	BSE

#### FEATURE OPERATION:

The Dedicated Network Access Link (DNAL) BSA allows the coordinated delivery of voice and data information for incoming and outgoing calls between a customer's host computer and the telephone company. The Computer Assisted Dialing Acceptance feature accommodates, via the exchange of data messages on the DNAL, the dialing of the called number with presenting an answered call to the agent's telephone in conjunction with the agent's host computer presentation of customer or subject specific data to the agent's computer terminal. Only calls receiving an answer condition will be presented to the agent.

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	DMS-100
Earliest Generic Release	BCS33

2. Currently, this feature is only available on lines served by an Automatic Call Distributor in the DMS-100 equipped with the Switch Computer Application Interface functionality.

#### 3. References:

 Ameritech Technical reference AM-TR-NIS-000109, Ameritech Switch to Computer Application Interface (ASCAI) Network Interface Specifications, Issue 1, October 1992.

# Computer Assisted Call Transfer Acceptance (2009)

Computer Assisted Call Transfer Acceptance allows the customer's host computer to notify the telephone company equipment to transfer a call after the call has been delivered to an agent.

Generic Name of ONA Service	Product Name	BSE or CNS
Computer Assisted Call Transfer Acceptance	AM - Computer Assisted Call Transfer Acceptance	BSE

#### FEATURE OPERATION:

The Dedicated Network Access Link (DNAL) BSA allows the coordinated delivery of voice and data information for incoming and outgoing calls between a customer's host computer and the telephone company. The Computer Assisted Call Transfer Acceptance feature accommodates, via the exchange of data messages on the DNAL, the transferring of calls between agents. The calls may be transferred at any time during the interaction with the customer.

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	DMS-100
Earliest Generic Release	BCS33

2. Currently, this feature is only available on lines served by an Automatic Call Distributor in the DMS-100 equipped with the Switch Computer Application Interface functionality.

#### 3. References:

• Ameritech Technical reference AM-TR-NIS-000109, Ameritech Switch to Computer Application Interface (ASCAI) Network Interface Specifications, Issue 1, October 1992.

# Call Redirection Acceptance (2008)

Call Redirection Acceptance allows the customer's host computer to notify the telephone company equipment to allow the call to complete as dialed or redirect an incoming call to an alternate number within the customer's Automatic Call Distributor (ACD) group prior to the call being accepted by an agent.

Generic Name of ONA Service	Product Name	BSE or CNS
Call Redirection Acceptance	AM - Call Redirection Acceptance	BSE

#### FEATURE OPERATION:

The Dedicated Network Access Link (DNAL) BSA allows simultaneous delivery of voice and data information for incoming and outgoing calls. The Call Redirection Acceptance feature interacts with the agent's host computer which may direct the telephone company equipment, via the exchange of data messages on the DNAL, to deliver an incoming call to an agent selected by the host computer. The host computer could have the capability to simultaneously deliver the calling party's personal data to the agent's computer terminal at the same time the call is delivered to the agent's telephone.

#### TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	DMS-100
Earliest Generic Release	BCS33

2. Currently, this feature is only available on lines served by an Automatic Call Distributor in the DMS-100 equipped with the Switch Computer Application Interface functionality.

#### 3. References:

• Ameritech Technical reference AM-TR-NIS-000109, Ameritech Switch to Computer Application Interface (ASCAI) Network Interface Specifications, Issue 1, October 1992.

# Video Dialtone Broadcast Service Channels (3011)

A Video Dialtone Service that provides for the transport of video and other programming signals.

Generic Name of ONA Service	Product Name	BSE or CNS
Video Dialtone Broadcast Channels	BA - VDT - Broadcast Channels	BSE

# FEATURE OPERATION:

Video Dialtone Broadcast Service Channels provides a Programmer-Customer with transport of 6 Mbps MPEG2 formatted digital signals from the Video Distribution Office to all end-user subscribers within the service area.

# TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

For interface publications, see Bell Atlantic Technical Publications TR-72550 and TR-72211.

Also see BroadBand Technologies Technical Publication TESP-0106. Contact information for BroadBand Technologies, Inc.:

BroadBand Technologies, Inc.

Suite 150, Triangle Business Center

4024 Stirup Creek Drive

Durham, NC 27703

Post Office Box 13737

Research Triangle Park, NC 27709-3737

Telephone: 919 544-0015

Fax: 919 544-5356

This service is offered where available and facilities permit.

# Video Dialtone Messaging Port (3013)

A Video Dialtone Service that provides for the transport of video and other programming signals

Generic Name of ONA Service	Product Name	BSE or CNS
Video Dialtone Messaging Port Service Channels	BA - VDT - Messaging Port	BSE

# FEATURE OPERATION:

Video Dialtone Messaging Port allows the Programmer-Customer to: 1) provide text message overlays on associated broadcast or narrowcast channels; or 2) specify designated broadcast or narrowcast channels that allow individual end-user subscribers to initiate interactive text sessions.

# TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

For interface publications, see Bell Atlantic Technical Publications TR-72550 and TR-72211.

This service is offered where available and facilities permit.

# Video Dialtone Narrowcast Service Channels (3012)

A Video Dialtone Service that provides for the transport of video and other programming signals.

Generic Name of ONA Service	Product Name	BS or CNS
Video Dialtone Narrowcast Service Channels	BA - VDT - Narrowcast Service Channels	BSE

#### FEATURE OPERATION:

Video Dialtone Narrowcast Service Channels provides a Programmer-Customer with transport of 6 Mbps MPEG2 formatted digital signals from the Video Distribution Office to end-user subscribers located in cells selected by the Programmer-Customer.

# TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

For interface publications, see Bell Atlantic Technical Publications TR-72550 and TR-72211.

Also see BroadBand Technologies Technical Publication TESP-0106. Contact information for BroadBand Technologies, Inc.:

BroadBand Technologies, Inc.

Suite 150, Triangle Business Center

4024 Stirup Creek Drive

Durham, NC 27703

Post Office Box 13737

Research Triangle Park, NC 27709-

3737

Telephone: 919 544-0015

Fax: 919 544-5356

This service is offered where available and facilities permit.

# **APPENDIX 2**

July 31, 1999